



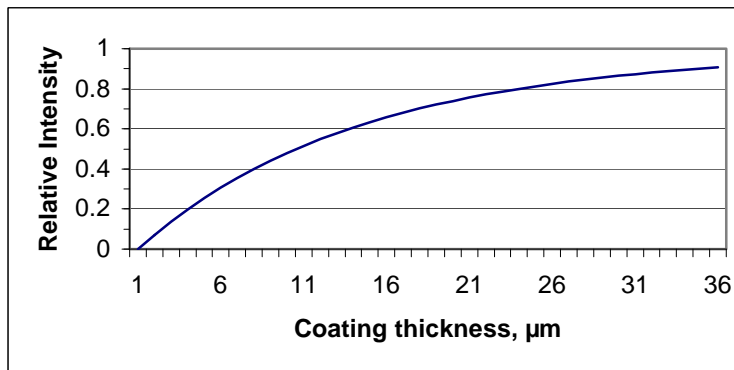
# Application Note

Coating system Zn/Fe

<b>Zn</b>	0.02 – 40.0
<b>Fe</b>	Base

## Measuring conditions:

Instrument	<b>Xray Compact</b>		<b>Xray maXXi</b>	
X Ray tube	Microfocus-W-X-ray tube, Be window, Al-primary filter		Microfocus-W-X-ray tube, glass window	
Collimator	0.1 mm x 0.4 mm		0.5 mm Ø	
HV	33 kV	40 kV	33 kV	40 kV



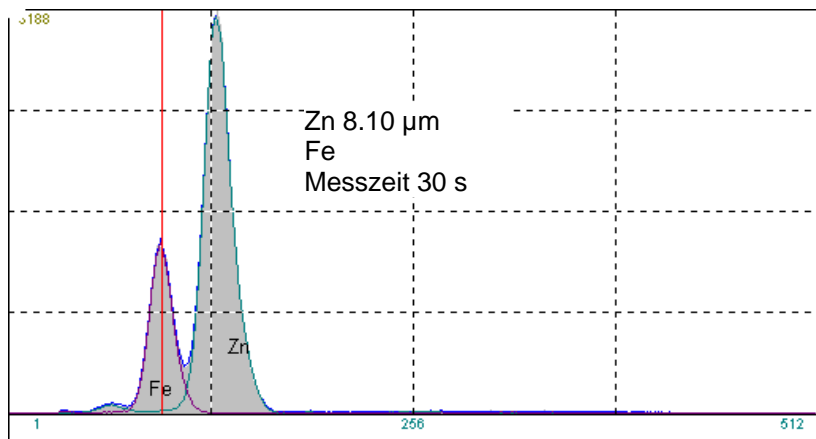
**Self absorption curve**

**Analytical range:** 0.02 – 40.0 µm

**Recommended Measuring time:** 10 sec

**Repeatability** (Mean value of analysis / Standard deviation for 10 measurements)

Instrument	<b>Xray Compact</b>		<b>Xray maXXi</b>	
	33 kV	40 kV	33 kV	40 kV
3.45 µm	3.63, 0.05	3.63, 0.04	3.54, 0.05	3.54, 0.09
8.10 µm	8.05, 0.12	7.83, 0.05	8.07, 0.08	7.95, 0.05
26.30 µm	27.41, 0.45	26.9, 0.51	27.89, 0.50	26.63, 0.53



**Used calibration standards:** 3.45 µm, 8.10 µm, 14.50 µm, 26.3 µm



# Application Note

**Measuring time for calibration:** 60 sec

**Comment:** Please have every time one standard for the upper third of the thickness range

## Remarks for the generation of the application

**XMaster Version:** 1.4.6d for Xray Compact and 1.4.6.6 for Xray maXXi

**FunMaster Version:** 2.1.1

**Background elements:** no

**Normalisation:** for pure element spectra

### Parameters (manually):

Instrument	Xray Compact		Xray maXXi	
LowerROIBase	5.743		5.255	
UpperROIBase	7.055		7.544	
LowerFitBase	5.743		5.255	
UpperFitBase	9.377		9.951	
ThresholdBase	0.005		0.005	
LowerROILaye	7.886		7.311	
UpperROI Layer	9.377		9.951	
LowerFitLayer	5.743		5.255	
UpperFitLayer	9.377		9.951	
ThresholdLayer	0.010		0.010	
<b>Calibration data (from parameter file)</b>				
	33 kV	40 kV	33kV	40 kV
Certified thickness of standard set	3.45, 8.10,		14.50, 26.30	
Measured thickness of standard set	3.37, 7.42, 12.74, 23.11	3.38, 7.51, 13.10, 23.49	3.54, 7.78, 13.65, 25.38	3.32, 7.36, 13.00, 22.78
Instruments calibration coefficients	1.0375814, 0.0051880	1.0295241, 0.0043864	1.0019863, 0.0020974	1.0416896, 0.0052570